

Model: DQKH
Frequency: 60
Fuel type: Diesel
KW rating: 2250 standby

> **Generator set data sheet**



**Power
Generation**

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Exhaust emission data sheet:	EDS-1014
Exhaust emission compliance sheet:	
Sound performance data sheet:	MSP-1001
Cooling performance data sheet:	MCP-126
Prototype test summary data sheet:	PTS-155
Standard set-mounted radiator cooling outline:	A030T233
Optional set-mounted radiator cooling outline:	
Optional heat exchanger cooling outline:	
Optional remote radiator cooling outline:	0500-3878

Fuel consumption	Standby				Prime				Continuous
	kW (kVA)				kW (kVA)				kW (kVA)
Ratings	2250 (2812)								
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	Full
US gph	45	80	113	150					
L/hr	170	303	428	568					

Engine	Standby rating	Prime rating	Continuous rating
Engine manufacturer	Cummins Inc.		
Engine model	QSK60-G9		
Configuration	Cast iron, V 16 cylinder		
Aspiration	Turbocharged and low temperature aftercooled		
Gross engine power output, kWm (bhp)	2425 (3251)		
BMEP at set rated load, kPa (psi)	2682 (389)		
Bore, mm (in)	159 (6.25)		
Stroke, mm (in)	190 (7.48)		
Rated speed, rpm	1800		
Piston speed, m/s (ft/min)	11.4 (2243)		
Compression ratio	14.5:1		
Lube oil capacity, L (qt)	176 (186)		
Overspeed limit, rpm	2100 ±50		
Regenerative power, kW	207		

Fuel flow			
Maximum fuel flow, L/hr (US gph)	1685 (445)		
Maximum fuel inlet restriction, kPa (in Hg)	8.4 (2.5)		
Maximum fuel inlet temperature, °C (°F)	71 (160)		

Air	Standby rating	Prime rating	Continuous rating
Combustion air, m ³ /min (scfm)	183 (6455)		
Maximum air cleaner restriction, kPa (in H ₂ O)	6.2 (25)		
Alternator cooling air, m ³ /min (cfm)	161 (5700)		

Exhaust

Exhaust flow at set rated load, m ³ /min (cfm)	445 (15705)		
Exhaust temperature, °C (°F)	479 (895)		
Maximum back pressure, kPa (in H ₂ O)	6.7 (27)		

Standard set-mounted radiator cooling

Ambient design, °C (°F)	40 (104)		
Fan load, kW _m (HP)	57.4 (77)		
Coolant capacity (with radiator), L (US gal)	632 (167)		
Cooling system air flow, m ³ /min (scfm)	3024 (106799)		
Total heat rejection, MJ/min (Btu/min)	94.1 (97177)		
Maximum cooling air flow static restriction, kPa (in H ₂ O)	0.12 (0.5)		
Maximum fuel return line restriction kPa (in Hg)	23.7 (7)		

Optional set-mounted radiator cooling

Ambient design, °C (°F)			
Fan load, kW _m (HP)			
Coolant capacity (with radiator), L (US gal)			
Cooling system air flow, m ³ /min (scfm)			
Total heat rejection, MJ/min (Btu/min)			
Maximum cooling air flow static restriction, kPa (in H ₂ O)			
Maximum fuel return line restriction, kPa (in Hg)			

Optional heat exchanger cooling

Set coolant capacity, L (US gal)			
Heat rejected, jacket water circuit, MJ/min (Btu/min)			
Heat rejected, aftercooler circuit, MJ/min (Btu/min)			
Heat rejected, fuel circuit, MJ/min (Btu/min)			
Total heat radiated to room, MJ/min (Btu/min)			
Maximum raw water pressure, jacket water circuit, kPa (psi)			
Maximum raw water pressure, aftercooler circuit, kPa (psi)			
Maximum raw water pressure, fuel circuit, kPa (psi)			
Maximum raw water flow, jacket water circuit, L/min (US gal/min)			
Maximum raw water flow, aftercooler circuit, L/min (US gal/min)			
Maximum raw water flow, fuel circuit, L/min (US gal/min)			
Minimum raw water flow at 27 °C (80 °F) inlet temp, jacket water circuit, L/min (US gal/min)			
Minimum raw water flow at 27 °C (80 °F) inlet temp, aftercooler circuit, L/min (US gal/min)			
Minimum raw water flow at 27 °C (80 °F) inlet temp, fuel circuit, L/min (US gal/min)			
Raw water delta P at min flow, jacket water circuit, kPa (psi)			
Raw water delta P at min flow, aftercooler circuit, kPa (psi)			
Raw water delta P at min flow, fuel circuit, kPa (psi)			
Maximum jacket water outlet temp, °C (°F)			
Maximum aftercooler inlet temp, °C (°F)			
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient, °C (°F)			
Maximum fuel return line restriction, kPa (in Hg)			

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Optional remote radiator cooling¹	Standby rating	Prime rating	Continuous rating
Set coolant capacity, L (US gal)	193 (51)		
Max flow rate at max friction head, jacket water circuit, L/min (US gal/min)	1817 (480)		
Max flow rate at max friction head, aftercooler circuit, L/min (US gal/min)	503 (133)		
Heat rejected, jacket water circuit, MJ/min (Btu/min)	45.1 (42765)		
Heat rejected, aftercooler circuit, MJ/min (Btu/min)	36.4 (34525)		
Heat rejected, fuel circuit, MJ/min (Btu/min)	2.1 (2000)		
Total heat radiated to room, MJ/min (Btu/min)	18.8 (17887)		
Maximum friction head, jacket water circuit, kPa (psi)	69 (10)		
Maximum friction head, aftercooler circuit, kPa (psi)	48 (7)		
Maximum static head, jacket water circuit, m (ft)	18 (60)		
Maximum static head, aftercooler circuit, m (ft)	18 (60)		
Maximum jacket water outlet temp, °C (°F)	104 (220)		
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient, °C (°F)	49 (120)		
Maximum aftercooler inlet temp, °C (°F)	71 (160)		
Maximum fuel flow, L/hr (US gph)	1685 (445)		
Maximum fuel return line restriction, kPa (in Hg)	30.5 (9)		

Weights²

Unit dry weight kgs (lbs)	15587 (34363)
Unit wet weight kgs (lbs)	16221 (35760)

Notes:

¹ For non-standard remote installations contact your local Cummins Power Generation representative.

² Weights represent a set with standard features. See outline drawing for weights of other configurations.

Derating factors

Standby	Engine power available up to 260 m (853 ft) at ambient temperatures up to 40 °C (104 °F). Above these elevations, derate at 3.3% per 305 m (1000 ft) and 8.4% per 10 °C (18 °F).
Prime	
Continuous	

Ratings definitions

Emergency standby power (ESP):	Limited-time running power (LTP):	Prime power (PRP):	Base load (continuous) power (COP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

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Alternator data

Voltage	Connection ¹	Temp rise degrees C	Duty ²	Single phase factor ³	Max surge kVA ⁴	Winding No.	Alternator data sheet	Feature Code
380	Wye, 3-phase	125	S		7327	13	ADS-515	B598
380	Wye, 3-phase	105	S		7963	13	ADS-516	B599
440	Wye, 3-phase	150	S		7284	12	ADS-515	B701
440	Wye, 3-phase	105	S		8438	12	ADS-516	B665
480	Wye, 3-phase	150	S		7695	312	ADS-335	B453
480	Wye, 3-phase	125	S		7284	12	ADS-515	B276
480	Wye, 3-phase	105	S		8438	12	ADS-516	B600
480	Wye, 3-phase	80	S		9728	12	ADS-517	B601
600	Wye, 3-phase	150	S		7695	07	ADS-335	B419
600	Wye, 3-phase	125	S		7265	07	ADS-515	B602
600	Wye, 3-phase	105	S		8253	07	ADS-516	B603
600	Wye, 3-phase	80	S		9611	07	ADS-517	B604
4160	Wye, 3-phase	150	S		6307	51	ADS-518	B606
4160	Wye, 3-phase	125	S		6307	51	ADS-518	B467
4160	Wye, 3-phase	105	S		6307	51	ADS-518	B313
4160	Wye, 3-phase	80	S		7315	51	ADS-519	B605
12470	Wye, 3-phase	125	S		6038	87	ADS-521	B609
12470	Wye, 3-phase	105	S		6685	87	ADS-522	B608
13200-13800	Wye, 3-phase	125	S		6062	91	ADS-522	B611
13200-13800	Wye, 3-phase	105	S		6833	91	ADS-522	B612
13800	Wye, 3-phase	80	S		8012	91	ADS-523	B610

Notes:

¹ Limited single phase capability is available from some three phase rated configurations. To obtain single phase rating, multiply the three phase kW rating by the Single Phase Factor³. All single phase ratings are at unity power factor.

² Standby (S), Prime (P) and Continuous ratings (C).

³ Factor for the *Single Phase Output from Three Phase Alternator* formula listed below.

⁴ Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

Cummins Power Generation

1400 73rd Avenue N.E.
 Minneapolis, MN 55432 USA
 Phone: 763 574 5000
 Fax: 763 574 5298

Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

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